EVALUATION OF LEUCAENA GERMPLASM FOR PSYLLID RESISTANCE

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Of all fast going legumes Leucaena species offers the widest assortment of uses. In Sri Lanka, it is used in agro-forestry, in livestock production as a feed, very commonly as a fuel wood species and as an ornamental tree. This is mainly due to it's ability to grow rapidly under a wide range of soil and climatic conditions. It has also high coppicing ability, easy to establish and produce nutritious forage and green manure.

The major constraint to its use is the susceptibility to the jumping plant lice, Heteropsylla cubana which was first seen in February 1987. It has spread widely and attacked the commonly grown Leucaena varieties namely K 8 and K 636.

A National Committee was formulated to study the problem of Psyllids and the main activity of this committee has been to evaluate several Leucaena species for Psyllid resistance in collaboration with the Nitrogen Fixing Tree Association Hawaii.

The trial was conducted at the University Experimental Station, Dodangolla, Kundasale. Twelve different Leuceana entries together with Gliricidia maculata as the control was used. The entries were evaluated both in the nursery and in the field for Psyllid population, Psyllid damage, predators and growth.

Based on the preliminary information the species/hybrids resistant to Psyllids may be categorized follows.

Resistant	-	L. pallida K 376, L. Collinsii, Hybrid K X 1 L. diversifolia # 46568.
Moderately resistant	-	Hybrid K X 2, L. diversifolia K 785, L. esculanta
Susceptible	-	L. Leucocephala K 636, L. diversifolia K 156 L. diversifolia #33820
Highly susceptible	-	L. leucocephala K 8, Hybrid K X 3